

Response:

1. **Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Sutt, Jr et al., U.S. Patent No. 5,761,863. In regards to claim 1, Sutt discloses a permanent one-piece retrofit hurricane and earthquake connector comprising a base member (34) and angled top web with rafter tabs (40), connected by a doubled angled offset member (Fig. 4, 44). Sutt's '863 is a fine invention, but it is physically different from the applicant's invention, and his support bracket 34 cannot tie a roof rafter to the top plate on the exterior of a house. Sutt's Fig. 4 shows a side view of his support bracket 34. Although not at all similar in shape or function, for this response, his angular section 44 may be defined as a double-angled offset member such as the applicant's first and second bends 9 and 12 respectively.**
2. **Sutt's Fig. 4 shows his angular section (44) at the bottom of his support bracket (34). The applicant's Fig. 2 shows a side view of the double-angled offset member, comprising first and second bends 9 and 12, that separate the base member 14 from the offset top web 13. Sutt's end section 40 and flat wall section 42 are above his angular section 44. The applicant's double-angled offset member 9 and 12 are in between the base member 14 and offset top web 13. This physical difference is stated in the applicant's claim 1 "a base member (14) and angled top web (13) with rafter tabs, connected by a double-angled offset member (9 and 12)". Therefore the applicant's invention is physically different from Sutt's support bracket and this physical difference is stated in claim 1.**
3. **Sutt's Fig. 4 shows his flat wall section (42) as a flat vertical member, and his end section (40) as a flat horizontal member. The applicant's Fig. 2 shows the base member 14 as vertical and the angled top web 13 as angled away from vertical. This physical difference is stated in claim 1 as "angled top web", and in claim 5 "as a means of offsetting said top web". Therefore the applicant's invention is physically different from Sutt's support bracket and the angled and offset top web is stated in applicant's claims 1 and 5.**
4. **One object of Sutt's support bracket (34) is to be mounted on the "exterior surfaces**

of a building wall", column 2, lines 39-40. Sutt's Figs. 2, 3, 5, 7, 8, 9, 10, and 11 all show his bracket mounted on the inside of a building. Sutt's figure 6 looks like the interior, but is stated as being mounted on the exterior. Sutt's support bracket 34 is not mounted to a roof rafter or roof truss, but is shown attached to "a cripple beam 98 of rake end overhang 90 and to a truss beam 100 of wall 92", column 8, lines 10-11. The applicant could not find "cripple beam" in any construction manuals, but a "cripple stud" is a short, vertical stud, above or below an opening. A "stub joist" is a short horizontal joist that is perpendicular to the main joists, and would attach to the joist on one end and to the roof rafter on the other end. A soffit would be attached, covering the wood members. As interpreted by the applicant, the overhang 90 would be referred to as the soffit, and carries little or no structural loads. Sutt shows a soffit 20 on his Fig. 2. Sutt's "truss beam 100 of wall 92" must be interpreted as a wall stud. Therefore, Sutt's support bracket is not shown attached to a rafter or top plate on the exterior of a house. It will be shown later that Sutt's support bracket cannot be attached to the rafter and top plate on the exterior of a house..

5. **Sutt's support bracket (34) can only be mounted on structural beams that are at right angles to each other.** Sutt's Fig. 2 shows his support bracket 34 mounted to a wall stud 24 and a sloping rafter 14 on the inside of a house. Sutt states "Consequently, a filler block 48 is included adjacent to ceiling sheet 22 for providing a flat surface against which support bracket 34 may rest. In an alternative embodiment, however, support bracket 34 can be configured to conform directly against ceiling sheet 22", column 6, lines 56-61. Sutt's filler block 48 indicates that his support bracket cannot tie directly into sloping rafters. Accordingly, Sutt's support bracket is not a "one-piece" connector like the applicant states in the beginning of claim 1. Sutt states that his support bracket can be "configured" to fit against ceiling sheet 22. The applicant assumes that this means it can be bent to fit sloping ceilings. The applicant's invention will fit any rafters of any slope, and is much stronger than Sutt's because it can't be bent. Therefore, The applicant's invention is physically different, and claimed differently from Sutt's support bracket.
6. **Sutt's Fig. 2 shows lag screws (36) and (38) driven through his support bracket (34)**

into a rafter (14) and wall stud (24), bypassing the top plate (26). Sutt's fasteners can not possibly be driven into the top plate, as shown on Sutt's Fig. 2. The applicant's claims 6 and 10 state that the invention attaches to the underlying top plate. Therefore, the applicant's invention is claimed physically different from Sutt's support bracket.

7. **Sutt's Fig. 7 shows that his support bracket extends the entire length of a wall.** Sutt's specification for Fig 7 states "Preferably, support bracket 34 of structural molding member 32 extends the entire length of wall 12.", from column 6, lines 35-36. This makes his support bracket unwieldy and physically different from the applicant's invention which attaches on the structural members individually and easily. The applicant's claim 10 states that the invention attaches to a rafter. Therefore the applicant's invention is claimed physically different from Sutt's support bracket.
8. **Sutt's Figs. 2, 3, 5, 6, 7, 8, 9, 10, and 11, show his support bracket attached to the weak, thin edge of each structural member.** It is well known that lag screws driven into the 1½-inch-wide edge of a rafter will split and weaken the wood. Especially, if Sutt's lag screw is "four inches long with a ¾ inch diameter", column 6, lines 4-5. The applicant's claim 8 states that the rafter tabs are attached "to the sides of a roof rafter". Therefore, the applicant's invention is claimed physically different from Sutt's support bracket.
9. **Sutt's specification states "rafters are usually spaced 24 inches apart, while wall studs are usually spaced 16 inches apart.", column 6, lines 42-44.** The applicant had seen this in 1993 and has not tried to tie the rafter directly to the wall stud. Sutt states that the spacing is "usually" 16 or 24 inches, but only in a perfect world. The applicant's present invention ties through the outer sheathing into the underlying top plate, which is always under the rafter. In fact, the applicant sent out some of his original hurricane ties (patent pending) to Tim Reinhold, co-inventor of Sutt's support bracket. The applicant had his brother (John Thompson) write Mr. Reinhold about the applicant's discoveries about spacing of rafters, top plates, and wall studs. A computer-generated copy of this 1994 letter is enclosed.

10. **The applicant's previous amended claims read over the cited reference and meet all 102 and 103 objections.** Accordingly, the applicant submits that this application is now in full condition for allowance, which action applicant respectfully solicits. If the examiner agrees but does not feel that the present claims are technically adequate, applicant respectfully requests that the examiner write acceptable claims pursuant to MPEP 707.07(j).

11. **Certificate of faxing:**

I hereby certify that this correspondence is being faxed to the U.S.P.T.O at examining group 3629, fax number (703) 872-9327

on MAY 30, 2002

(Date)

Printed name of person signing this certificate:

THOMAS C THOMPSON

Signature: Thomas C. Thompson